

DOCUMENT RESUME

ED 408 830

FL 024 580

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TITLE Learning Styles and the Japanese University Second Language Student.
PUB DATE Nov 96
NOTE 23p.; Paper presented at the Annual Meeting of the Japan Association of Language Teachers (22nd, Japan, November 1996).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150) -- Tests/Questionnaires (160)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Cognitive Style; College Students; English Literature; *English (Second Language); Foreign Countries; Higher Education; Language Research; Language Usage; *Learning Strategies; Linguistics; Majors (Students); Questionnaires; Second Language Learning; *Self Esteem; *Student Motivation; Study Habits; Surveys
IDENTIFIERS Japan

ABSTRACT

This study investigated learning styles and learning strategies among Japanese university students whose majors are directly related to English. Data were gathered in a survey of 365 students in English literature, language, or linguistics courses at two universities. The survey included questions about study outside class time, study using materials other than those specifically for class, use of a personalized approach to studying, self-monitoring of target language use, confidence in using the target language, and motivations for taking the English course. Respondents were also asked to assign attributes to each of four learning styles (heart, head, hands, free), indicate which they considered their own style to be, and assess the importance to their own learning of 16 general learning behaviors. Results indicate: (1) these students did not show attributes of the idealized good language learner, suggesting lack of personal involvement in the learning process; (2) students' ability to "construct" a four-group learning styles model was limited, suggesting limited understanding of the learning style concept; and (3) students' accuracy in assessing their own learning style was weak. The questionnaire used in the survey, in both English and Japanese, is appended. Contains 18 references. (MSE)

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Learning Styles and the Japanese University Second Language Student

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Introduction

Research in the area of second language learning has increasingly focused on learner characteristics and their possible influences on second language acquisition (Wenden, 1987). With an eye toward the true 'student-centered classroom', it is necessary for us as educators to consider the implications of individual learner characteristics and accordant learner differences. Learner differences are a function of many factors, including individual aptitude, personality, motivation, and learning style (Ehrman and Oxford, 1995). Awareness of student learning styles can help teachers address the diversity of learners in their language classrooms (Reid, 1995); further, we can reason that understanding of learning styles in general and identification of one's own learning style on the part of learners may represent an important means by which they can control and improve their second language acquisition. Through a learning styles oriented curriculum, we can "extend the student-centered classroom to a student-empowered classroom in which students identify their learning style strengths and weaknesses, discover ways to flex those styles to meet the demands of various learning situations, and learn appropriate ways to ask teachers to plan their activities in a culturally sensitive environment" (Kinsella, 1995).

This paper examines three questions pertinent to learning styles in the Japanese university second language classroom. First, do Japanese university second language students exhibit effective language learning behaviors? Such can be considered indicative of the level to which culturally based beliefs and attitudes about learning are attuned to the notion of individual learning differences. The second question concerns Japanese university second language students' understanding of the learning styles concept. Simply put, do these language learners have a conceptual sense of the notion of learning styles? And third, are these students able to self-assess their own natural or preferred learning style? In addition to an understanding of the learning styles concept, it is important for learners to be able to identify their own learning style, and subsequently adopt and develop appropriate, personalized approaches and strategies to

language learning.

Learning is a highly individualized behavior, with individual differences among learners a function of cognitive aptitude, personality, motivation and tolerance of anxiety, as well as individual learning style and strategy (Ehrman & Oxford, 1995). Noting the complexity of the learner's role in the language learning process, it is important for Japanese students to understand that there is no single 'correct' method for language learning and that there is significant potential to be found in following one's natural learning intuition, one's preferred learning style.

Background

Good Language Learners

As outlined by Ehrman and Oxford (1995), individual differences among language learners can be described on the basis of aptitude, age, sex, motivation, anxiety, self-esteem, tolerance of ambiguity, risk-taking, language learning styles and language learning strategies. The Good Language Learner (GLL) profile, developed by Naiman, Frohlich, Stern and Todesco (1978), an early attempt to identify the characteristics and attributes of successful language learners based on classroom observation and personal interviews, incorporates these elements in a single profile. As identified by Naiman et al., good language learners (GLLs):

- (1) Are opportunistic, seeking out and exploiting situations to use the target language.
- (2) Are highly motivated to learn the target language, integratively (desire to become a member of the target language culture) and/or instrumentally (pragmatic concerns like job, advancement, etc.).
- (3) Are highly adaptable, learning in a variety of situations and classroom conditions.
- (4) Have a high anxiety threshold and are not inhibited in use of the target language.
- (5) Are risk-takers unconcerned about making errors.
- (6) Are internalizers, monitoring their errors and applying analytical skills to the target language to categorize and remember linguistic features.
- (7) Are collectors, using personalized study skills to sort target language information and attend to details.
- (8) Are adolescents or adults rather than children. (from Greene, 1995)

In the present study, the degree to which learners fit the GLL characteristics and adhere to the specific behavioral indicators provides an introductory indicator of the degree of students' active and personal involvement in their own learning process.

Learning Styles

Learning styles are internally based characteristics, often not perceived or used consciously, that are the basis for the intake and understanding of new information (Reid, 1995). Learning styles dictate an individual's natural, habitual, and/or preferred way of absorbing, processing, and retaining new information and skills, a way which persists regardless of teaching methods or content area (Kinsella, 1995). As learning styles are not a function of intelligence and are equally justifiable based on individual disposition and experience, they are value-neutral and free from labeling or stigmatization. Everyone has a particular learning style, an ongoing outcome of both biological and experiential/developmental influences, and each person's learning style is as unique as their signature. Learning styles have been divided into sensory components, cognitive components, and affective/temperament components, encompassing environmental, physical, psychological, and sociological elements based on individual perception, cognition, conceptualization, affect, and behavior, where the principal models are as follows (for complete descriptions, see Reid, 1995; p. ix-xiii):

Cognitive learning style models

Field-Independent - Field-Dependent (Field-Sensitive);

Analytic - Global; Reflective - Impulsive;

Kolb's Experiential Learning Model

(Converger, Diverger, Assimilator, Accommodator)

Knowles four cognitive styles

(Concrete, Analytical, Communicative, Authority-oriented)

Sensory learning style models

Perceptual: Visual, Auditory, Kinesthetic, Tactile, Haptic

Environmental: individual variables [diet, mobility, time of day, . . .],
setting variables [temperature, light, sound, setting, . . .]

Sociological: variables of group, individual, teacher led, team, pair,
cooperative, competitive learning

Affective/Temperament learning style models

Temperament Styles: Extraversion - Introversion; Sensing - Perception;
Thinking - Feeling; Judging - Perceiving

Tolerance of Ambiguity Styles: Ambiguity Tolerant - Ambiguity Intolerant

Brain Hemisphericity: Left-Brained - Right-Brained

(Knowles, 1982; Reid, 1995, p. ix-xiii)

However, it is important to note that the multitude of specific elements within these categories are not mutually exclusive; while each model covers one element within a total learning styles spectrum, taken together they represent various means and combinations for describing the complex process of learning. The four most significant elements for adult learners have been

identified as (1) perceptual strengths (sensory based), (2) brain hemisphericity (affective/temperamental based), (3) analytical versus relational learning (cognitive based), and (4) independent versus collaborative work situations (sociological based) (Kinsella, 1995).

Regarding Japanese students' learning styles, Reid (1987) found no major preferred learning style (from among visual, auditory, kinesthetic, tactile, group, and individual) among Japanese language learners, instead finding multiple minor learning styles, a result which was in contrast to students of other nationalities. Yamashita (1996), in comparing the learning style preferences of Japanese overseas-returnee students with non-returnee students, reported that while returnee students showed a strong preference for the tactile learning style, non-returnee students did not. Further, while both groups exhibited minor preferences for auditory, kinesthetic, and individual learning styles, non-returnee students did so with less strength and less individual variability. Which is to say, the returnee students exhibited more definite and variable learning style preferences than the non-returnee students, confirmation of Reid's earlier findings.

I believe these results can be interpreted as the outcome of an approach to language learning in Japan which on the one hand, outright ignores or ultimately overpowers any individual natural learning style preference, and on the other hand, emphasizes instrumental motivation for language learning. These factors, coupled by a lack of conscious development of individual learning styles, results in students who are either not aware of or no longer maintain any such learning style preferences. In the end, and by the time of reaching university, the Japanese student is either left with very little in the way of any preferred learning style, or essentially ignorant of the learning styles notion itself.

The ultimate aim of an understanding of learning styles is the development and use of learning strategies, specific learning style based skills which can be taught and which can make learning easier, faster, more enjoyable, more self-directed, and more transferable to new situations (Reid, 1995; Oxford, 1990). Unlike learning styles, learning strategies are outcome effective, as adopting appropriate strategies (with respect both to learning style preference and specific learning task) can enhance success with language learning. As Rossi-Le (1995) pointed out, learning styles and learning strategies are logically linked, and an individual's learning style

preference influences the types and forms of learning strategies employed. However, without an understanding of the learning styles concept and awareness of one's own preferred learning style, this style - strategy connection is, by and largely, not utilized in language learning (Rossi-Le, 1995).

As alluded to in the introduction, I believe there is great pedagogical potential to be found in introducing the good language learner profile and learning styles concept to learners. While learning styles themselves are outcome neutral in terms of student success in language acquisition, understanding of the learning style concept and identification of one's learning style enables personalization of the general good language learner attributes and behaviors as well as development of specific learning styles based learning strategies. Thus, the specific investigation objectives were thus three: (1) to assess the reality of good language learners in the Japanese university English language classroom; (2) to determine the level of students' conceptual understanding of the learning styles concept; and (3) to identify the principal learning styles among students and to test the accuracy of these self-assessments by examination of learning behaviors.

Survey Methodology

Data collection was undertaken by survey questionnaire, administered to 365 students, equal numbers enrolled in English language, English literature, and English linguistics classes at one national university and one private university. Respondents were primarily first year (44%) and second year (40%) students, with 22% citing an academic major directly related to English (Table 1). Surveys were coded to ensure anonymity and students were told that their responses would not affect their grades. Results are reported as response percentages or cross tabulations as indicated.

[[Table 1]]

To describe students on the basis of the attributes outlined in the Good Language Learner model, the survey included questions concerning: (1) study outside of class time; (2) study using materials other than those specifically for class; (3) use of a personalized approach or way of studying; (4) self-monitoring of target language use; (5) confidence versus insecurity in using

the target language; and (6) motivations for taking the specific English course.

Conceptual understanding of learning styles was examined by having respondents 'construct' a learning styles model. As outlined previously, many two-dimensional, bipolar learning styles models have been developed, however, it is usually the case that learners' learning preferences transcend such bipolar dimensional criteria. Therefore, the present study used a learning styles model with four styles divisions, *abstract random*, *abstract sequential*, *concrete sequential*, and *concrete random* (based on original research by Gregorc, 1979, as interpreted by Butler, 1984). This model incorporates the elements found in other models, however, instead of focusing a single dimension, it incorporates the full range of cognitive, sensory, and affective/temperament learning styles elements. As a primary objective of the survey was to determine respondents conceptual understanding of the learning styles concept itself, these four styles were labeled simply *heart learning style*, *head learning style*, *hands learning style*, and *free learning style*, with descriptions and survey response characteristics as follows:

Heart learning style- description: believes that the medium is the message, responds
(*abstract random*) to vibes, is setting dependent, asks *why?*

survey response characteristics: empathetic, imaginative,
interpretive, sensitive, treats relationships as essential

Head learning style- description: contends that the medium is immaterial and focuses
(*abstract sequential*) on the message, debates and judges value, asks *what?*

survey response characteristics: analytical, evaluative, intellectual,
stresses reason and logic, prefers ideas

Hands learning style- description: operates in the real world, depends on the five senses;
(*concrete sequential*) defers to authority, asks *how?*

survey response characteristics: mechanical, practical, task-oriented,
a hands-on learner, likes everything in its place

Free learning style- description: brainstorming and experiments, is competitive and
(*concrete random*) creative, asks *what if?*

survey response characteristics: independent, intuitive, investigative,
a problem-solver, a risk-taker

Respondents were asked to 'construct' these four learning styles, by assigning learning styles specific 'survey response characteristics' (from the 20 provided) to each of the four learning styles based on their interpretation of the suitability of that characteristic as being representative of the respective learning style.

Following this, respondents were asked to indicate, from among these four learning styles, what they considered their own style to be. Finally, respondents were asked to indicate the

importance (on a five point scale: *very important* - *somewhat important* - *important* - *not important* - *unrelated*) to their own learning, of each of sixteen general learning behaviors, four each corresponding to each of the four learning styles (based on Gregorc, 1979; Butler, 1984). (The learning styles survey used in the present study is provided in Appendix 1.)

Survey Results

(1) Good Language Learners in the Japanese University Second Language Classroom

Quantitatively, good language learners, as described by the GLL model, are a minority in the Japanese university English language classroom. Nearly 60 percent indicated that their English study was *just in class* - *just for class*, and nearly 70 percent indicated that they did not use materials other than class materials (Table 2). Likewise, almost 70 percent responded that their primary motivation was instrumental, to obtain credits for graduation. The percentage expressing confidence with their language skills (considered as the *confident* + *somewhat confident* response, as opposed to the *somewhat insecure* + *insecure* response) was as low as 5% for speaking, increasing to 13% for listening, 19% for writing, and 33% for reading.

About one third of respondents, however, indicated study using materials other than those required in class, of which 66% cited use of *non-academic English language based materials*, 39% use of *other English language study materials* and 33% use of *other academic subject related English based materials*. Slightly more than one in ten indicated that they had developed their own way of studying and learning, and over sixty percent indicated that they have some ideas concerning an individualized study method.

Although the authors of the original GLL study point out that it is unlikely that every good language learner possesses each GLL attribute and that the variety of individual combinations of attributes is significant, cross tabulations among the respective survey responses for the GLL characteristics measured in this survey indicate that from 10-30% of respondents fit some combinative form of this idealized GLL profile (data not shown).

[[Table 2]]

(2) Conceptual Understanding of Learning Styles

The survey results indicate that students' conceptual understanding of the learning styles

concept, based on 'construction' of the four learning styles, was both limited in terms of 'learning style characteristic - learning style' accuracy and scattered in terms of 'characteristic - characteristic' grouping. In short, students appear to lack an accurate and congruent understanding of learning styles.

In assigning learning styles characteristics to representative learning styles, as based on their own interpretations, respondents matched characteristics with the respective learning styles (as described by Butler) at an overall average percentage of 37%, with an average congruence rate between representative characteristics, as based on respective cross tabulations of correctly assigned characteristics, of 16% (Table 3). This means that, on average just 4 out ten respondents matched a representative learning style characteristic with the respective learning style as described by the model, and that for any two learning style characteristics, the likelihood of both being matched correctly was just over 15%. For the most part, respondents didn't make the conceptual link between learning style and specific learning style characteristics, nor between corresponding learning style characteristics.

Just three out of the twenty characteristics were matched with the appropriate learning style at over 50% (*empathetic* - *heart* learning style: 58%; *risk-taker* - *free* learning style: 57%; *practical* - *hands* learning style: 53%); although two other characteristics, while not in agreement with the model, were matched with the *free* learning style at over 50%, *imaginative* and *work with ideas*). The average matching percentage for characteristics considered most representative of the four learning styles was 54% (hands: *practical*; head: *intellectual*; heart: *empathetic*; free: *risk-taker*). Finally, the highest level of congruence for two characteristics considered representative of a learning style was just under 40% (*imaginative* + *work with ideas* for the *free* learning style: 39%; *imaginative* + *risk-taker* : 38%; *risk-taker* + *work with ideas*: 38%).

[[Table 3]]

For the *hands* learning style alone, respondents assigned the top five characteristics (*practical*, *learns by doing*, *mechanical*, *task-oriented*, and *likes order*) in accordance with those identified by Butler, with an average matching percentage of 47% and a congruence rate between characteristics of 24%. Following this, for each of the three remaining learning

styles, the characteristics as described by Butler were indicated in three out of the top five, with the *head* learning style having 37% matching accuracy and a characteristic congruence of 17%, the *heart* learning style having an accuracy rate of 37% and a congruence of 15%, and the *free* learning style having 26% characteristic match accuracy and a 6% congruence rate.

While this task, 'construction' of four learning styles out of 20 specific learning characteristics, will naturally result in variation based on differing interpretation and association for common characteristics, some of the notable misses illustrative of the lack of conceptual understanding include: for the *head* learning style, *mechanical* was ranked #4 (42% matching accuracy), but *work with ideas* was ranked #17 (10%); for the *heart* learning style, *investigative* was ranked #2 (48%), *analytical* was ranked #5 (35%), and *logical* was ranked #6 (32%), all ahead of *relations essential*, which was ranked #10 (31%). Given that Gregorc's model and Butler's interpretation reflect and incorporate the essential elements of other learning styles models, we can accept the model as a reasonable representation of learning styles reality. That respondents didn't, for the most part, match Butler's descriptions is one significant outcome indicative of a lack of understanding; that the level of association among similar learning style characteristics was very low is another.

(3) Self-Assessment of Learning Style and Accuracy of Self-Assessment

The dominant self-assessed learning style reported by respondents was *heart* (36%), followed by *hands* (24%), *head* (15%), and *free* (13%) (Table 4). However, the accuracy of this self-assessment is subject to question on several counts. First of all, there is the question of the relative weakness regarding the conceptual understanding as described above, which would weaken respondents ability to judge their own learning style. Questions of accuracy also arose based on subsequent responses concerning specific learning behaviors and the congruence (correspondence) between the self-assessed learning styles themselves and the associated learning behaviors representative of the particular learning style.

Free learning style associated learning behaviors dominated in importance overall (*try new approaches*: #2, 65% (% response for *important* + *somewhat important*); *discover information*: #4, 62%; *use independent study*: #6, 60%; Table 5) and the four learning behaviors associated with the *free* learning style had the highest response average of any

learning style (61%) (Table 6), as opposed to the figures for *heart* (53%), *head* (48%), and *hands* (47%). The congruence between the self-assessed *free* learning style response and *free* learning style associated learning behavior responses was also highest (66%), as compared with the values for *heart* (55%), *head* (55%), and *hands* (53%) (Table 7).

Thus, although a majority of respondents self-assessed themselves as being of the *heart* learning style, learning behavior responses indicate that most respondents view *free* learning style related learning behaviors as being most important to their learning strategy and that those who self-assessed themselves as a free learner were most consistent in terms of *free* learning style associated learning behaviors.

[[Table 4]]

[[Table 5]]

[[Table 6]]

[[Table 7]]

Discussion

The results of the present survey can be summarized with the three following points:

(1.) Japanese university second language students appear not to exhibit the attributes of the idealized Good Language Learner, which, given the nature of these attributes, is indicative of a lack of active and personal involvement in their own learning process.

(2.) Students' ability to 'construct' a four group learning styles model appears to be limited and scattered, indicative of limited conceptual understanding of the learning styles notion.

(3.) Students' accuracy in assessing their own learning style also appears to be weak, as seen in the contradiction in responses regarding self-reported learning style and preferred learning behavior. Students appear not to have an intuitive sense of their own learning style.

Results regarding the Good Language Learner attributes and behaviors indicate that good language learners, as described by the ideal composite profile of the GLL model, are a minority in the Japanese university foreign language classroom. While this result is indicative of the lack of effective language study habits which are introduced in the foreign language classrooms at Japanese universities, it as well highlights the tremendous potential to be found in simply

introducing to students the attributes and learning behaviors of effective learners. Great gains can be made by teaching students how to be good language learners. Dadour & Robbins (1996), in their work on language learning strategy instruction, came to a similar conclusion, indicating that student passivity was a major obstacle to strategy instruction. We can not underestimate the importance of student involvement and initiative in the learning process.

Results indicate that student understanding of the learning styles concept is limited and inconsistent. While there are many difficulties in assessing learning styles (see Eliason, 1995), the importance of raising student awareness of learning styles in general, as well as their own preferred learning style, has also been emphasized (Rossi-Le, 1995). The present survey indicates that we do need to address this relatively low level of understanding concerning learning styles among Japanese university second language students. Such understanding can not be taken for granted; rather, we must treat the introduction of the language learning styles concept as one prerequisite to language content and skills oriented teaching.

The results regarding the accuracy of student self-assessment of learning style indicate a lack of student awareness regarding their own learning style at best, and confusion, possibly contradiction regarding the learning style - learning behavior concept at worst. This can be seen both in the high self-assessment accorded the *heart* learning style in light of subsequent responses indicating the importance of *free* learning style based learning behaviors, and in the high level of correspondence between *free* learning style self-assessment and *free* associated learning behaviors, as compared with the relative congruence results for the others.

These conditions, the lack of effective learning behaviors exhibited by learners, as well as the level of learning style - learning behavior confusion/contradiction, may originate in Japan's unique education culture. While effective learning behaviors and learning styles are ultimately an individual characteristic, the influence of culture in determination of an individual's learning style and habits can not be discounted. Individuals 'learn how to learn' through socialization processes occurring at home, among friends, and in schools. Socialization processes are a significant factor in Japan, where as Nelson (1995) points out, learning behaviors illustrate three dominant learning style attributes: *modeling*, *field-sensitivity*, and *reflectivity*.

Modeling, learning by watching someone model the skill to be learned, is based on an observation - action continuum, a carefully structured process, taking place in a carefully

managed setting. Successful modeling requires field-sensitivity, which demands both awareness of others and uniform behavior. Modeling and field-sensitivity in turn demand reflectivity, the practice of taking the time as needed to observe, to adjust behavior, and to think a problem or task through. These three behavioral attributes are essential to educational success in Japan, where the teacher is unquestioned and group behavior is the norm, and where guessing is tantamount to not having spent enough time in finding the correct answer and being partially right is seen as being completely wrong. Over the course of one's educational life, over-emphasis of these three attributes can effectively suppress one's awareness and reliance on any natural or preferred learning style.

Having been educated on a strict regimen of modeling, field-sensitivity, and reflectivity, and being worn out by the rigors of the entrance exam system, university students' learning styles and behaviors survey responses may indicate initial attraction to the 'warmth' and 'humanness' of the *heart* learning style and the potential to incorporate *reflecting on feelings* as a learning behavior into their learning strategy. Moreover, the relative lack of importance attributed the various learning behaviors associated with the *head* and *hands* learning styles (*be accurate-precise, use references-lectures, organize structure, get correct answers*), may indicate that students are questioning the value of both reflectivity and field sensitivity (while still prioritizing modeling, as seen in the *have exact directions* response). However, most important are the preferential responses accorded the *free* learning style associated learning behaviors (*try new approaches, discover information, use independent study, search for options*), which indicate that students may as well be attempting to develop a new *free* learning style based learning approach, which we can label *independent discovery*.

The learning behaviors characteristic of this *independent discovery* learning approach fit the characteristics of good language learners as identified in the Good Language Learner model, specifically, being *opportunistic, adaptable, risk-takers* and *personalizing study skills*. It thus appears that Japanese university language students, as expressed through their learning styles and behavior preferences, intuitively want to become Good Language Learners.

Although the benefits in understanding, identifying, and capitalizing on learning styles are many, we have largely failed to include the notion of learning styles and accordant learning behaviors and strategies in our materials and teaching. While teachers, with greater awareness

of students' learning styles, will be better able to prepare and assign both 'learning behavior', as well as 'content' oriented curricular tasks, teachers can as well benefit from identifying their own preferred teaching style. The term "style wars" was coined by Oxford, Lavine, Ehrman and Fechter (1992) to indicate a mismatch in teaching and learning styles, a potential reason for poor language learner performance. For the learner, understanding of the learning styles concept, as well as knowledge of their own preferred learning style, will enable them to approach a variety of content materials and teaching methodologies with an understanding of their particular learning preferences and aversions. In turn, introduction of effective learning behaviors and development of individualized learning styles based learning strategies will provide students with confidence in their strengths and a framework for how to best overcome their individual learning weaknesses. And finally, there is value for both teacher and student in diversifying away from a single teaching/learning style preference, and instead "flexing" such styles, accommodating the inherent variation of materials and means encountered in the learning environment (Kroonenberg, 1995). In an ideal world, the learning setting would allow learners to seek out approaches and materials particularly suited to their learning style, however, students must learn to adapt and adjust their learning to the vast variety of methods and materials.

By introducing Good Language Learner attributes and behaviors, and by helping students to identify their preferred learning style, we can encourage them to take a personal and active role in their own learning, leading to more successful and independent learning. By incorporating what we know about learning styles in general, as well as our students' specific learning styles, we can develop 'content', as well as 'learning style-strategy' oriented materials which are more attuned to those students. By exploring our own learning styles, the basis of our teaching styles, we can embrace a 'flexible' approach to teaching, as well as emphasizing the importance of such a 'flexible' learning styles-strategies approach with our students. It is clear that we as educators can do much more to tap into the potential that the learning styles concept holds for our students.

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Appendix: LEARNING STYLES SURVEY

This survey examines the relationship between Good Language Learners and Learning Styles.

この調査は、Good Language Learners と Learning Styles の関係を調べる。

For Questions 1 - 9 please circle the appropriate answer.

次の問 1 ～ 9 まで、適当な答えに○をつけて下さい。

Q1 What year student are you at present? 現在、何年生ですか。

- (1) first year 一年生 (2) second year 二年生
(3) third year 三年生 (4) fourth year 四年生

Q2 Please answer regarding your university major - 大学の専攻科目について

- (1) Major is directly related to English
専攻は、英語に直接関係がある（たとえば、英米文学、言語学、英語教育）。
(2) Major is unrelated to English, but English may be important in my future study or job 専攻は、英語に直接関係がないけれど、将来英語の能力が重要である。
(3) Major is unrelated to English, but I need English credits to graduate
専攻は、英語に直接関係がないけれど、英語の単位が必要である。

Q3 Do you study English outside of your regular university classroom study on a regular, continuous basis? 大学の授業以外、英語定期的に勉強をしますか。

- (1) Yes, at least one hour every day はい、毎日一時間以上
(2) Yes, not everyday, but more than just in class はい、毎日でなくても、授業だけではない
(3) No, just in class (includes study for term tests) いいえ、授業だけ（試験勉強を含む）

Q4 Do you study materials other than your regular university classroom texts?

大学の授業の教材以外、別の英語の教材を使いますか。

- (1) Yes はい (go to Q5) (2) No いいえ (go to Q6, next page)

Q5 What sorts of materials? その教材は、どのような教材ですか、どちらかに、○をつけて下さい。

- (5-1) at a conversation school? 英会話学校 (1) Yes はい (2) No いいえ
(5-2) using other English textbooks and resource materials
別の英語の教科書や英語専攻に関して教材 (1) Yes はい (2) No いいえ
(5-3) using other subject related books written in English
別の話題や専攻内容に関して英語で書いた本 (1) Yes はい (2) No いいえ
(5-4) using English material other than books, (video, magazines, music)
教科書や本以外の英文教材（ビデオ、雑誌、音楽） (1) Yes はい (2) No いいえ

Q6 Do you have 'your own way of studying'? Have you developed your own method for learning English - for example remembering words or grammar?

あなたは、「自分の勉強方法」がありますか。例えば、単語や文法を覚えるために自分で何か工夫がありますか？

- (1) Yes, I have my own ways はい、自分の勉強方法がある
(2) I have some of my own ideas 多少自分のやり方がある
(3) No, I have never thought about this こうゆうことを考えなかった

Q7 Do you monitor and correct your English mistakes? When you are speaking, do you notice and correct your own mistakes. In the same way, when writing English, do you reread, looking for your own errors and correct them?

自分の英語をチェックしますか？そして、間違いを直そうとしますか？例えば、英語を話す時に、自分の間違いに気がつき、それを訂正しますか？同じように、書く時にもしますか？

- (1) Yes, always いつも (2) Yes, sometimes 時々
(3) Not often あまりない (4) Never まったくない

Q8 Are you confident or insecure about trying to use English? Are you worried

about making mistakes or errors and so sometimes don't use English?

英語を使うことについて自信がありますか、不安ですか？例えば、勉強している、あるいは、英語を使うチャンスあれば、間違う事に心配があるから、英語を使わないのですか。

(8-1) speaking ability 話す能力

(1) confident (2) somewhat confident (3) somewhat insecure (4) insecure
自信がある やや自信がある やや不安がある 不安がある

(8-2) listening ability 聞く能力

(1) confident (2) somewhat confident (3) somewhat insecure (4) insecure

(8-3) writing ability 書く能力

(1) confident (2) somewhat confident (3) somewhat insecure (4) insecure

(8-4) reading ability 読む能力

(1) confident (2) somewhat confident (3) somewhat insecure (4) insecure

Q9 Choose your two top motivations for studying English.

英語を勉強する動機は？二つあげて下さい。

- (1) I need English credits for graduation 卒業するための必要な単位
- (2) I will be an English teacher after graduation 英語の先生になる
- (3) I think that English skills will help me get a good job 良い仕事を見つけるため
- (4) I want to be able to use English language materials 英文の教材を使うようになりたい
- (5) I want to be able to speak English comfortably 英語を話すようになりたいため

For Questions 10, 11, and 12, please read this and then proceed.

次を読んで、問10、11、12を続けて下さい。

There are thought to be FOUR Learning Styles.

四つの Learning Styles があると思われます。

the HEART type who asks WHY . . . (なぜ、どうして . . .)

the HEAD type who asks WHAT . . . (何が、何を . . .)

the HANDS type who ask HOW . . . (どうゆう、どうやって . . .)

the FREE type who asks IF . . . (もしも . . .)

Q10 In the boxes below, please group the following characteristics into four

Learning Styles groups. Use the alphabet letters.

次の項目を、四つのグループに分類して下さい。記号を使って下さい - 複数回答可。

- | | |
|--------------------------------------|------------------------------------|
| A. creates in mechanical ways 機械的な動作 | K. interpretive 解釈的 |
| B. task-oriented 目的に向かう | L. likes to work with ideas アイデア好き |
| C. intuitive 直観的 | M. likes to investigate 研究好き |
| D. likes order 順序よく | N. empathetic 感情的 |
| E. analytical 分析的 | O. relationships essential 人間関係が重要 |
| F. imaginative 想像的 | P. independent 独立的 |
| G. evaluative 評価的 | Q. a problem-solver 問題解決 |
| H. logical 論理的 | R. sensitive 敏感 |
| I. learns by doing やってみて習う | S. intellectual 知的 |
| J. likes to take risks 冒険好き | T. practical 実際の |

Heart

Head

Hands

Free

Q11 Which of the following Learning Types do you think you are?

あなたは、どの Learning Type ですか？

Q12 How would you describe yourself as a language learner? Please indicate whether the following learning behaviors are:

あなたは、Language Learner として、どう思いますか？次の「教育行動」について、適当な番号選んで下さい。

	(5)	(4)	(3)	(2)	(1)
	very important	somewhat important	important	not important	unrelated
	かなり重要	重要	やや重要	重要ではない	関係がない
trying new approaches to solving problems 問題を解くことへの新しいアプローチを試みる	(5)	(4)	(3)	(2)	(1)
working and sharing with others 友人と一緒に勉強する	(5)	(4)	(3)	(2)	(1)
having exact directions and examples 詳しい説明や例	(5)	(4)	(3)	(2)	(1)
reading expert references and lecture notes 参考書や講義ノートを読む	(5)	(4)	(3)	(2)	(1)
reflecting on feelings 情熱	(5)	(4)	(3)	(2)	(1)
being independent 一人勉強	(5)	(4)	(3)	(2)	(1)
judging the value and importance 重要性の判断	(5)	(4)	(3)	(2)	(1)
being accurate and precise 几帳面になる	(5)	(4)	(3)	(2)	(1)
getting correct answers 正しい答えがわかる	(5)	(4)	(3)	(2)	(1)
searching for a variety of options 様々な選択のための追求	(5)	(4)	(3)	(2)	(1)
debating points of view 観点を討論する	(5)	(4)	(3)	(2)	(1)
being part of a social group 社会的グループの中で試みる	(5)	(4)	(3)	(2)	(1)
looking for facts and information 事実と情報をさぐる	(5)	(4)	(3)	(2)	(1)
appreciating the beauty of something 何かを鑑賞する	(5)	(4)	(3)	(2)	(1)
organizing things in a logical and structured way 論理的に、そして組み立てられた方法で整理する	(5)	(4)	(3)	(2)	(1)
discovering new information and processes 新しい情報とプロセスを見つける	(5)	(4)	(3)	(2)	(1)

Learning Styles and the Japanese University Second Language Student Tables

Table 1: Survey Respondent Profile

Respondent academic year:	
first year	43.6%
second year	39.5
third year	9.0
fourth year	7.1
(first and second year	83.0%)
Respondent academic major:	
directly related to English	22.2%
unrelated, but English important	32.3
unrelated, but need English credits	44.9

Note: n= 365

Table 2: 'Good Language Learner' Profile Responses

Do you study English study outside of English class?		
yes, one hour everyday	2.5%	
yes, more than in class	38.6	
no, just in class, just for class	58.6	
Do you study English using materials other than class materials?		
yes	32.1%	no 67.7%
If yes: English based 'cultural' materials		
other English language texts	65.8%	
'content' texts in English	39.3	
English conversation school	33.3	
Do you have you own way of studying English?		
yes, have own way	15.4	
yes, have some ideas	13.4%	
no, have never considered	63.8	
Do you monitor your own English usage and mistakes?		
yes, always monitor	18.4	
yes, sometimes monitor	25.8%	
no, not often monitor	49.9	
no, never monitor	20.6	
Are you confident or insecure about using English?		
speaking: confident 0.3% + somewhat confident 4.9%	=	5.2%
somewhat insecure 35.3% + insecure 58.6%	=	93.9
listening: confident 1.1% + somewhat confident 11.5%	=	12.6
somewhat insecure 33.4% + insecure 52.9%	=	86.3
writing: confident 0.6% + somewhat confident 18.4%	=	19.0
somewhat insecure 45.2% + insecure 34.8%	=	80.0
reading: confident 3.3% + somewhat confident 30.1%	=	33.4
somewhat insecure 43.8% + insecure 21.6%	=	65.4
What are you top two motivations for studying English?		
for graduation credits	69.3%	0.0%
will be an English teacher	8.8	1.6
job skills	13.4	15.3
for access to English materials	6.0	9.0
to speak English comfortably	1.4	66.0

Note: n= 365

Table 3: Respondent Construction of Learning Styles

<u>Assessment of Characteristic</u>		<u>Congruence of Assessments⁽⁴⁾</u>	
Hands Learning Style:			
+ ⁽¹⁾ practical	52.9% ⁽²⁾ / # 1 ⁽³⁾	practical + learns by doing	32.9%
+ learns by doing	49.0 / # 2	practical + mechanical	30.7
+ mechanical	46.9 / # 3	practical + likes order	24.9
+ task-oriented	44.4 / # 4	learns by doing + mechanical	24.9
+ likes order	43.0 / # 5	learns by doing + likes order	24.4
Average for (+)	47.2%	mechanical + likes order	23.8
		learns by doing + task-oriented	22.5
		practical + task-oriented	21.6
		task-oriented + likes order	19.7
		mechanical + task-oriented	17.3
		Average	24.3%
Head Learning Style:			
+ intellectual	47.1% / # 1	intellectual + logical	28.0%
+ logical	43.8 / # 2	logical + analytical	25.8
+ evaluative	42.5 / # 3	intellectual + analytical	25.2
mechanical	41.9	logical + evaluative	23.8
likes order	41.6	intellectual + evaluative	23.3
+ analytical	40.0 / # 6	evaluative + analytical	21.4
interpretive	39.7	Average	16.7%
+ work with ideas	9.9 / # 17		
Average for (+)	36.7%		
Heart Learning Style:			
+ empathetic	58.1% / # 1	empathetic + sensitive	31.2%
investigative	48.5	empathetic + investigative	24.7
+ sensitive	43.0 / # 3	empathetic + relations essential	23.3
+ interpretive	34.8 / # 4	empathetic + interpretive	20.3
analytical	34.5	sensitive + relations essential	18.4
logical	31.5	sensitive + interpretive	12.9
+ relations essential	30.7 / # 10	empathetic + imaginative	12.9
+ imaginative	17.5 / # 15	sensitive + imaginative	12.1
Average for (+)	36.8%	Average	15.1%
Free Learning Style:			
imaginative	64.4%	imaginative + work with ideas	38.9%
+ risk-taker	57.0 / # 2	imaginative + risk-taker	38.4
work with ideas	53.4	risk-taker + work with ideas	37.8
+ independent	27.4 / # 4	risk-taker + independent	18.6
+ intuitive	26.9 / # 5	risk-taker + Intuitive	16.4
+ likes to investigate	14.8 / # 10	Average	6.4%
+ a problem-solver	3.8 / # 15		
Average for (+)	26.0%		
OVERALL Avg. for (+): 36.7%		OVERALL Average: 15.6%	
Note: (1) + indicates a learning style characteristic as described by Butler (1987);			
(2) percentage assigning characteristic to the respective category; (3) rank assigned			
by respondents for characteristic in respective category; (4) cross tabulation of			
response for all characteristics assigned a category (< 10% cases omitted) ; n= 365			

Table 4: Self-Assessed Learning Styles

Heart	35.9%
Hands	24.1%
Head	15.3%
Free	12.9%

Note: n=365

Table 5: Respondent Preferred General Learning Behaviors

learning behavior	learning style	very important	somewhat important	important	not important	unrelated
reflect on feelings	(heart)	48.8%	26.6	14.5	2.5	1.4
try new approaches	(free)	24.1	41.1	21.9	4.7	1.6
have exact directions	(hands)	29.6	33.7	26.6	3.6	0.6
discover information	(free)	23.0	38.9	26.9	3.6	1.4
look for facts	(hands)	22.5	37.8	27.4	5.2	1.1
use independent study	(free)	23.3	36.2	26.6	5.8	2.2
judge value/importance	(head)	26.6	31.8	25.2	7.4	3.0
appreciate beauty	(heart)	23.6	32.6	30.1	4.7	2.7
search for options	(free)	23.0	32.9	31.0	4.9	1.6
make a social group	(heart)	23.3	28.5	29.0	9.6	3.3
debate points of view	(head)	15.9	34.5	30.7	10.1	2.5
get correct answers	(hands)	20.0	23.3	35.3	13.2	1.9
organize structure	(head)	13.7	28.8	35.3	14.0	2.2
use references/lectures	(head)	11.2	30.1	42.2	8.8	1.1
share learning	(heart)	6.0	22.5	35.9	20.6	9.0
be accurate and precise	(hands)	6.3	14.8	30.4	28.8	13.4

Note: percentage indicating the learning behavior as preferred; learning behavior descriptions from Butler (1987); n= 365

Table 6: Preferred Learning Behaviors

grouped by Learning Styles

Free Learning Style

try new approaches	65.2%
discover information	61.9
use independent study	59.5
search for options	55.9

Average 60.6%

Heart Learning Style

reflect on feelings	75.4%
appreciate beauty	56.2
make a social group	51.8
share learning	28.5

Average 53.0%

Head Learning Style

judge value/importance	58.4%
debate points of view	50.4
organize structure	42.5
use references/lectures	41.4

Average 48.2%

Hands Learning Style

have exact directions	63.3%
look for facts	60.3
get correct answers	43.3
be accurate and precise	21.1

Average 47.0%

Note: percentage indicating the learning behavior as *very important* and *somewhat important* for each respective category (see Table 5); n= 365

Table 7: Accuracy of Learning Style Self-Assessments

Indicated by congruence (cross tabulations) between self-assessed learning style and respective self reported preference of general learning behaviors.

self-assessed : Free L.S. (12.9%)

reflect on feelings	(heart)	80.9%
try new approaches	(free)	76.6
appreciate beauty	(heart)	66.0
search for options	(free)	63.8
discover information	(free)	63.8
use independent study	(free)	61.7
have exact directions	(hands)	59.6
average congruence:		<u>66.5%</u>

self-assessed : Head L.S. (15.3%)

discover information	(free)	73.2%
reflect on feelings	(heart)	73.2
try new approaches	(free)	66.1
judge value/importance	(head)	66.1
have exact directions	(hands)	64.3
use independent study	(free)	64.3
look for facts	(hands)	62.5
use references/lectures	(head)	53.6
debate points of view	(head)	51.8
organize structure	(head)	50.0
average congruence:		<u>55.4%</u>

self-assessed : Heart L.S. (35.9%)

reflect on feelings	(heart)	77.9%
have exact directions	(hands)	67.9
discover information	(free)	67.2
try new approaches	(free)	66.4
look for facts	(hands)	65.7
use independent study	(free)	63.4
appreciate beauty	(heart)	62.6
judge value/importance	(head)	59.5
search for options	(free)	58.0
make a social group	(heart)	51.1
share learning	(heart)	29.0
average congruence:		<u>55.2%</u>

self-assessed : Hands L.S. (24.1%)

reflect on feelings	(heart)	85.2%
have exact directions	(hands)	71.6
look for facts	(hands)	70.5
try new approaches	(free)	70.5
judge value/importance	(head)	68.2
use independent study	(free)	62.5
discover information	(free)	62.5
search for options	(free)	62.5
make a social group	(heart)	60.2
get correct answers	(hands)	44.3
be accurate and precise	(hands)	26.1
average congruence:		<u>53.1%</u>

Note: % indicates cross tabulation for the Learning Style and respective learning behaviors (%: *very important* + *somewhat important*); underlined learning behaviors indicate a learning behavior characteristic of the respective learning style as indicated by Butler (1987); n= 365



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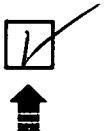
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